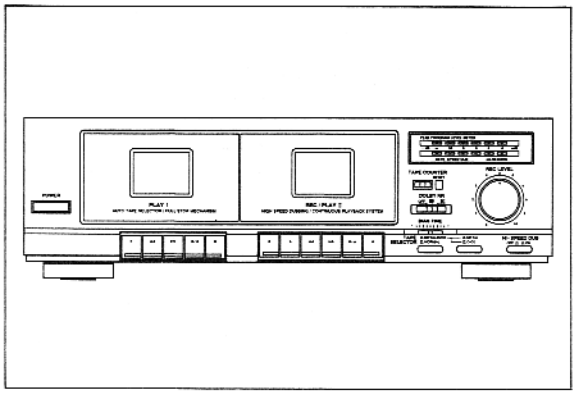
TEAC®

9101385700

W-420C/W-410

Stereo Double Cassette Deck



OWNER'S MANUAL

Thank you for buying a TEAC.
Read this manual carefully to get the best performance from this deck.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.
Model number _____
Serial number _____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

0491·M-0529A

CAUTION:

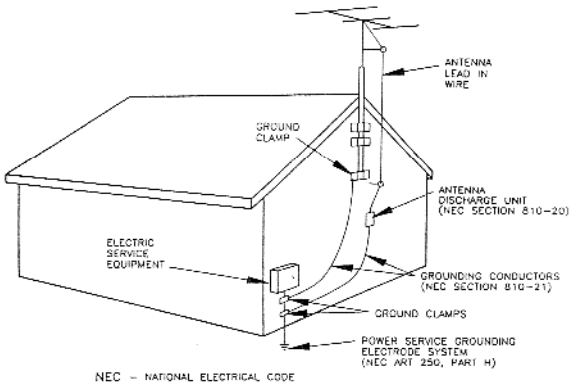
- **Read all of these instructions.**
- **Save these instructions for later use.**
- **Follow all warnings and instructions marked on the audio equipment.**

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. **Wall or Ceiling Mounting** - The applicance should be mounted on a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Grounding or Polarization** - Precautions should be taken so that the grounding or polarization of the appliance is not defeated.
12. **Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
14. **Power Lines** - An outdoor antenna should be located away from power lines.
15. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70 - 1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure below.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE


ANTENNA LEAD IN WIRE
GROUND CLAMP
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
ELECTRIC SERVICE EQUIPMENT
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

NEC - NATIONAL ELECTRICAL CODE

16. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

17. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

18. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.

19. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

PRECAUTIONS

Environment

Avoid using the deck in the following conditions:

- At high temperatures (near a heater, exposed to direct sunlight, etc.).
- At extremely low temperatures.
- Where there is excessive humidity.
- In a dusty atmosphere.
- Where power line voltage fluctuations are severe (the use of a voltage regulator may be advisable).

Tape Handling:

Do not store tapes in the following places:

- On top of heaters, exposed to direct sunlight or in any other places with high temperatures.
- Near speakers, on TV sets or amplifiers or where they would be exposed to strong magnetic fields.
- Where humidity is high and in dirty, dusty places.
- Avoid dropping or subjecting cassettes to excessive shocks.
- As C-120 tapes are physically weak and could become entangled in the transport mechanism, do not use them.

CAUTION:

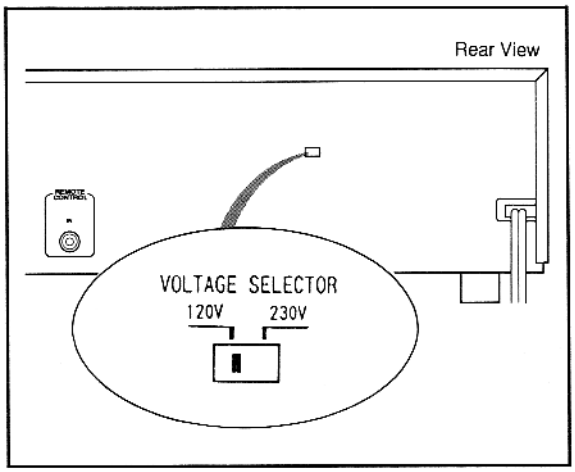
Recording pre-recorded tapes, records, or other published or broadcast material may infringe copyright laws. Check before recording.

Voltage Conversion

(General export models only)

Be sure to remove the power cord from the AC outlet before repositioning the voltage converter switch.

1. Locate the voltage selector on the rear panel.
2. Using a flat-bladed screwdriver, set to the appropriate 230 V or 120 V position according to your area.



IMPORTANT (for U.K. Customers)

The wires in this mains lead are coloured in accordance with the following code:

BLUE: **NEUTRAL**
BROWN: **LIVE**

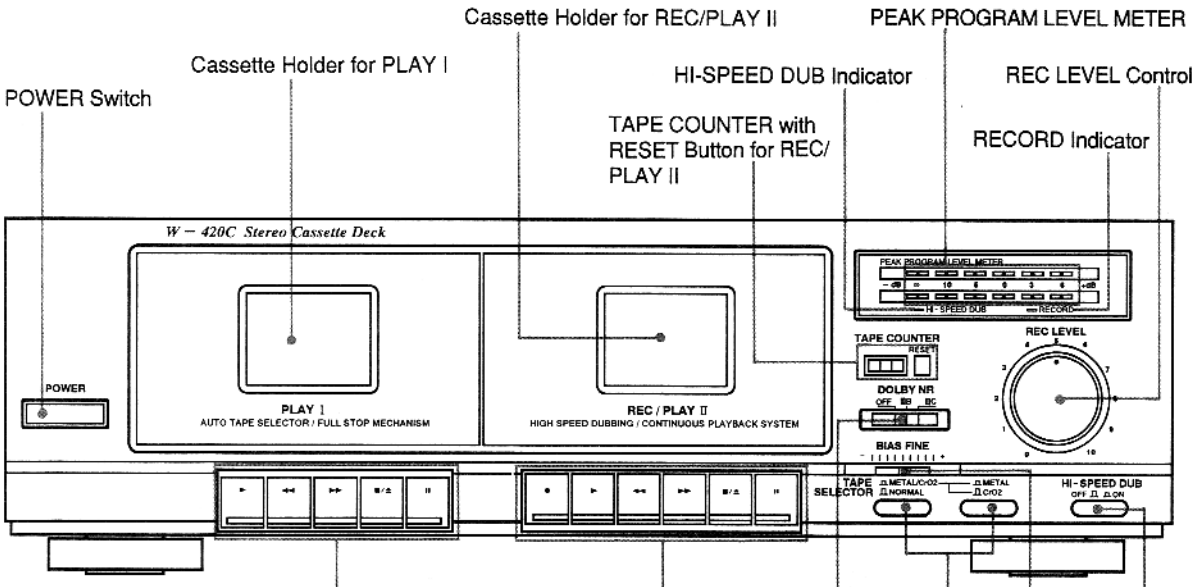
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN, must be connected to the terminal which is marked with the letter L or coloured RED.

In the U.K., this unit is sold without an AC plug.

THE APPLIANCE CONFORMS WITH EEC DIRECTIVE 87/308/EEC REGARDING INTERFERENCE SUPPRESSION

* Dolby noise reduction manufactered under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

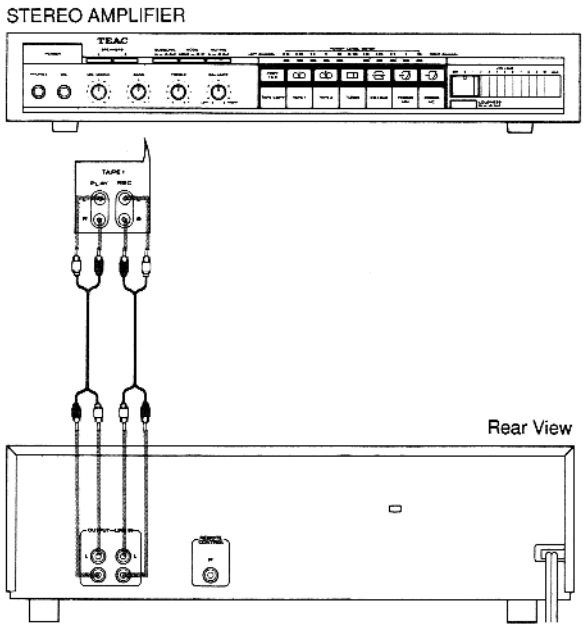
NAME OF EACH CONTROL



Obs! nätströmställaren skiljer ej hela apparaten från nätet.

CONNECTIONS

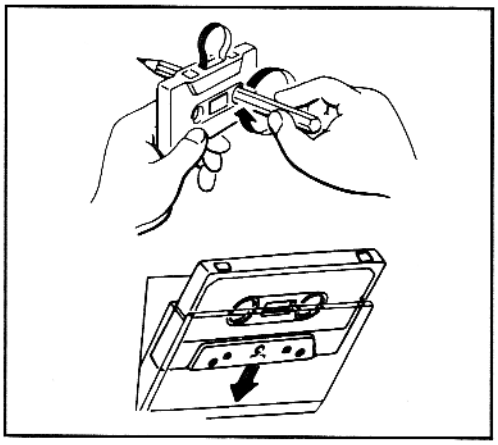
- Turn off power for all equipment before making connections.
- Read instructions of each component you intend to use with the deck.



Loading a Cassette Tape

We recommend that you load the cassette tape in the PLAY I compartment when playing a single tape, so that you can use the pause feature and tape counter.

1 Use your finger or a pencil to turn the cassette's hub and take up any slack tape.



Note: Avoid touching the tape. Fingerprints attract dust and dirt.

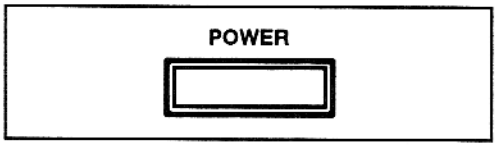
2 Press the appropriate stop/eject button (■/▲) to open the cassette compartment door.

3 Load the cassette tape with its open edge facing down.

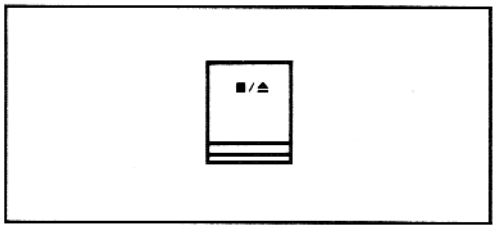
4 Gently close the compartment door.

Playback (PLAY I or REC/PLAY II deck)

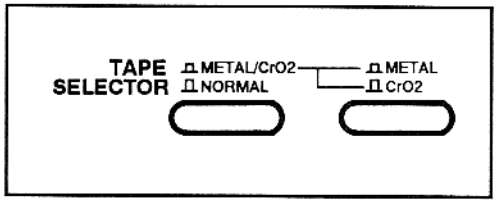
1 Press the POWER switch to on.



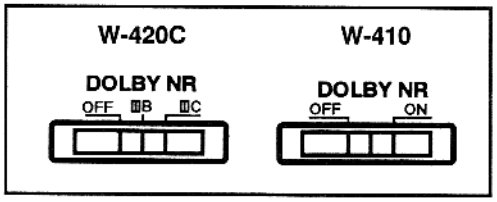
2 Open the cassette holder by pressing the stop/eject button (■/▲) and load a prerecorded cassette in PLAY I or REC/PLAY II.



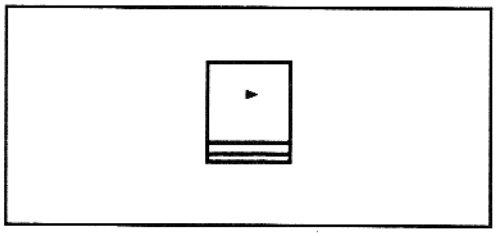
3 Set both TAPE SELECTOR switches to the appropriate positions according to the type of tape.



4 Set the DOLBY NR switch as required (to the same position as during recording).



5 Press the play button to start playback.



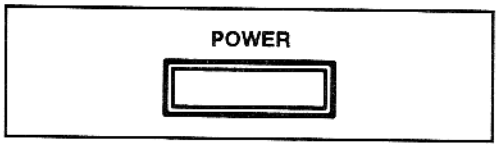
6 Adjust the amplifier until the listening level is comfortable.

REC/PLAY II Priority
When both PLAY I and REC/PLAY II are played back simultaneously, REC/PLAY II has priority. Therefore, if the play button of REC/PLAY II is pressed while a tape is being played back in PLAY I, playback will switch over to REC/PLAY II.

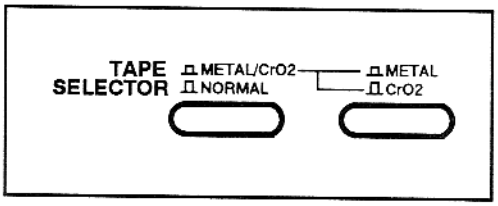
Recording with REC/PLAY II

Do not leave the PLAY I deck in the playback mode.

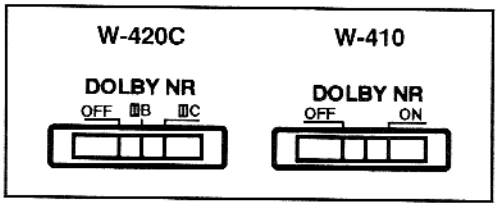
1 Press the POWER switch to on.



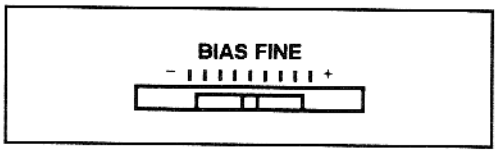
2 Load a recordable cassette. Set both TAPE SELECTOR switches to the appropriate positions according to the type of tape loaded.



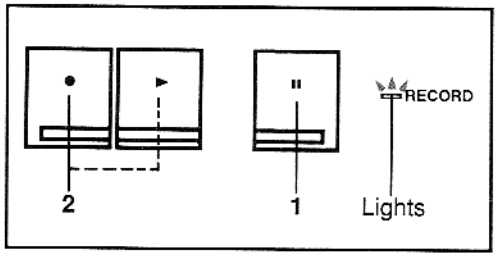
3 Set the DOLBY NR switch as required.



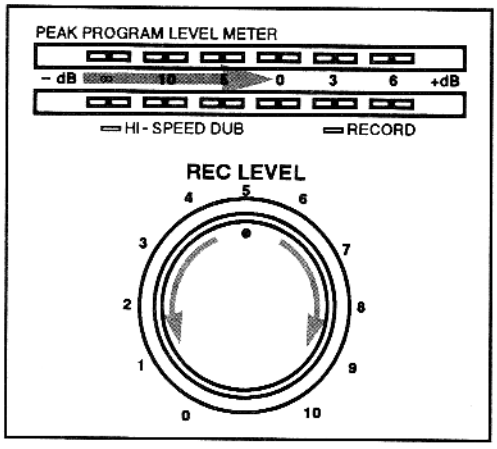
4 Set the BIAS FINE (W-420C only) to the center click position.



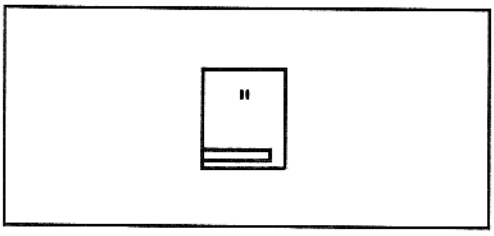
5 Press the pause button and then press the record button. (The RECORD LED indicator comes on.) This enables you to adjust the recording level without actually recording. (Operate in the order shown.)



6 Adjust the REC LEVEL control so that the loudest sound to be recorded makes the meter indication just reach the 0 dB point. For more details, see "Setting the Recording Level" section on page 8.

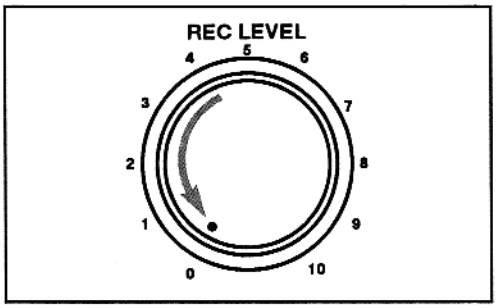


7 Press the pause button again to start recording.



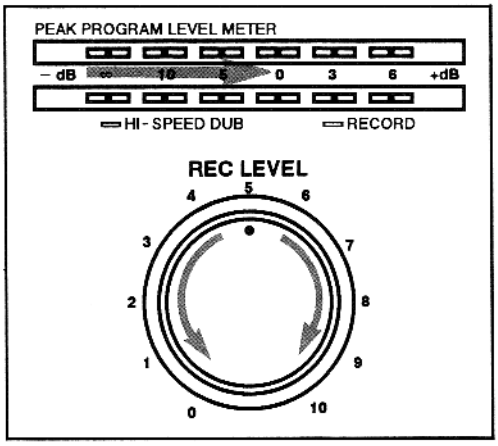
Erasing on REC/PLAY II

A previously recorded tape will be automatically erased when you make a new recording on it. Alternatively, it can be erased by "recording" on it with the REC LEVEL control set to "0".



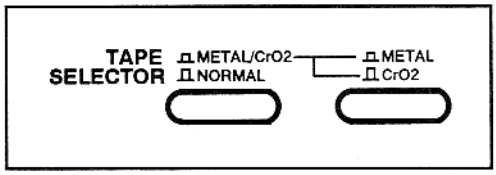
Setting the Recording Level

Setting the recording level correctly is essential if you want to make top-quality recordings. If the level is too low, the recording will be noisy. If the level is set too high, the recording will be distorted. Generally speaking, the recording level should be set so that the loudest signals to be recorded make the meters indicate about 0 dB. If the meters peak over the 0 dB point, the REC LEVEL control should be turned counterclockwise a little. However, some program material or different tape formulations (i.e., metal tape) may warrant higher recording levels.
With a little time and practice you will be able to select that critical recording level that gives you the best hi-fi recordings. The type and condition of the tape, as well as the type of music source you are recording will affect the optimum settings of the recording level.

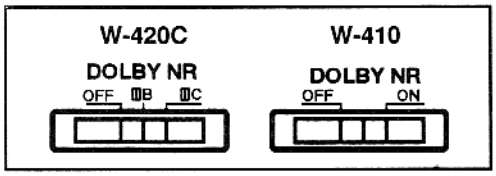


Continuous Playback (REC/PLAY II to PLAY I)

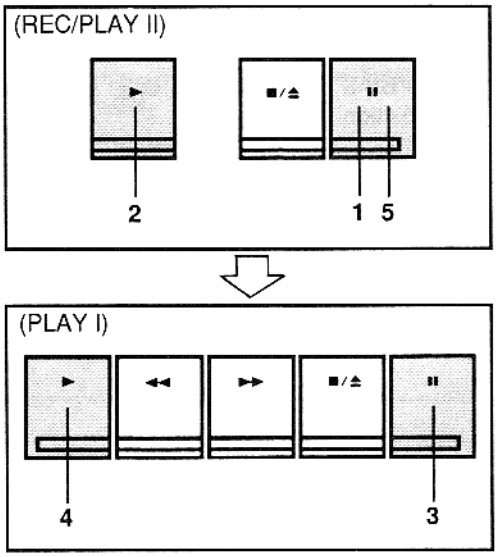
1. Load prerecorded cassettes in both PLAY I and REC/PLAY II.
2. Set the TAPE SELECTOR switches for REC/PLAY II.



3. Select the appropriate noise reduction system with the DOLBY NR switch.



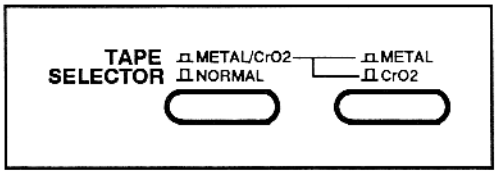
4. Press the pause and play buttons of REC/PLAY II then the same buttons of PLAY I. Now press the pause button of REC/PLAY II again to release the pause mode; playback will start. (Operate in the order shown.)



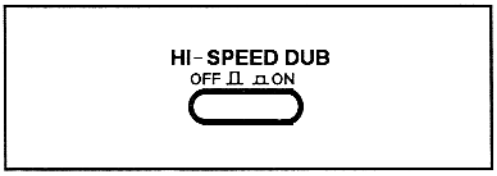
5. When REC/PLAY II reaches the end (or if the stop/eject button of REC/PLAY II is pressed), PLAY I starts playing automatically.

Dubbing (Copying PLAY I to REC/PLAY II)

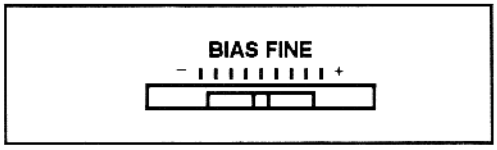
1 Load a prerecorded cassette in PLAY I and a recordable cassette into REC/PLAY II, and set the TAPE SELECTOR of REC/PLAY II as required.



2 Press the HI-SPEED DUB button to the ON position when you want dubbing to be done at high speed (the HI-SPEED DUB indicator lights).

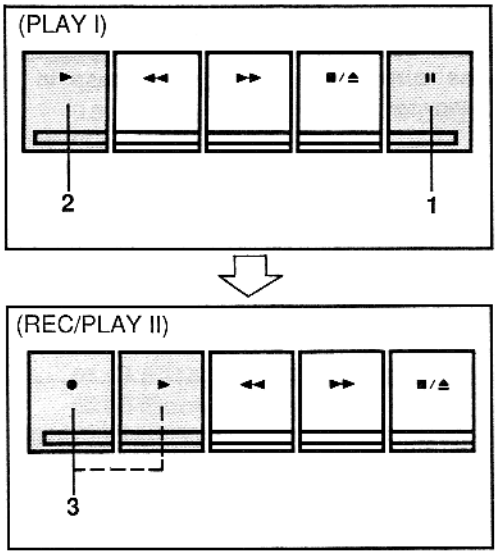


3 Set the BIAS FINE (W-420C only) to the center click position.



4 The DOLBY NR switch and REC LEVEL control settings can all be ignored, since these are turned off automatically when dubbing.

5 Press the pause and play buttons of PLAY I, then press the record button of REC/PLAY II to start dubbing. The PEAK PROGRAM LEVEL METER indicates the signal level of the tape in PLAY I. If a signal is supplied to the LINE IN jacks, it will be interrupted automatically.



6 To stop dubbing, press the stop/eject button of REC/PLAY II, then press the stop/eject button of PLAY I.

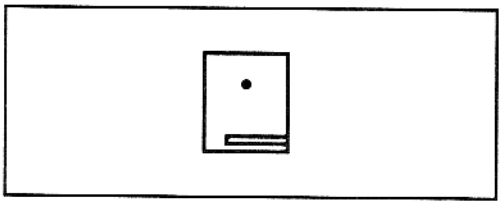
Notes:

1. When playing back the copied tape, use the same type of noise reduction system; i.e., if the tape in PLAY I was recorded with DOLBY C NR, the copied tape should be played back using DOLBY C NR (W-420C only).
2. Recording prerecorded tapes, records, or other published or broadcast material may infringe copyright laws. Check before recording.

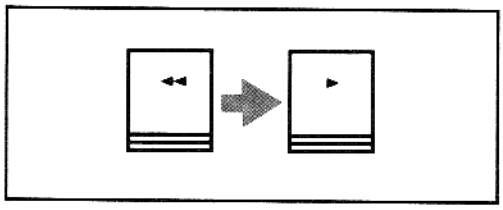
Using the BIAS FINE Control (W-420C only)

The center position provides the nominal amount of bias current. Moving the control toward "+" increases the amount of bias current; a minute decrease in high-frequency response will be obtained. Moving it toward "-" decreases the amount of bias current; a noticeable increase in high-frequency response will be obtained.

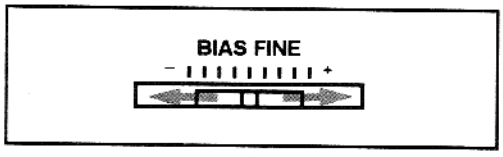
1. Make a recording from a compact disc, etc.



2. After recording, rewind the tape to the beginning of the recorded section, then play it to monitor the playback sound.



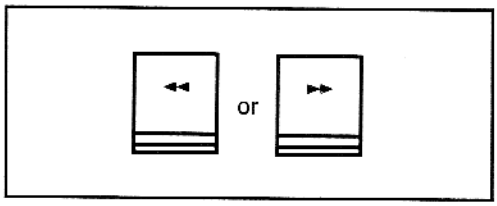
3. By comparing the monitored sound with the original, adjust the BIAS FINE control, then try recording again.



4. Repeat steps 1 through 3 until the optimum setting of the BIAS FINE control is obtained, so that the best possible sound can be recorded.

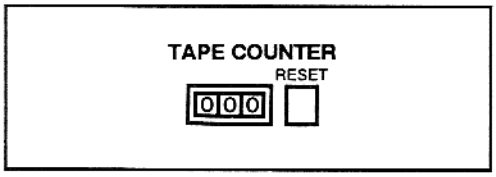
Using Fast-forward and Rewind

To fast-forward or rewind, press the button shown below.



Using the TAPE COUNTER with RESET Button

As you play or record a tape, the tape counter advances. At the beginning of the tape or tune, press the RESET button to reset the counter to "000". This allows you to note down the reading of the point where a specific tune starts, facilitating the quick location of the specified point on the tape.



UR REMOTE CONTROL

Since this cassette deck has a UR (Unified REMOTE CONTROL) function, if it is connected to a UR compatible amplifier, the pause mode of this deck can be controlled using the remote control unit provided with the amplifier.

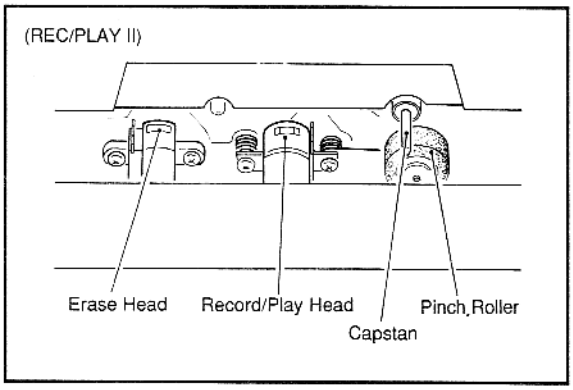
MAINTENANCE

The heads and tape path should be cleaned and demagnetized periodically.

Cleaning Tape Path

- Apply head cleaning fluid* to a cotton bud or soft cloth, and lightly rub the heads, capstan and all metal parts in the tape path.
- Also clean the pinch roller using rubber cleaning fluid*.

* Both are available in TEAC Tape Recorder Cleaning Kits HC-1 and RC-1 in the U.S.A. or TZ-261 in other areas.



Demagnetizing Heads

Be sure that the power is off, then demagnetize the heads using a TEAC E-3 demagnetizer. For details of its use, read its instructions.

Caution:

It the surface of the unit gets dirty, wipe with a soft cloth or use a diluted neutral cleaning liquid. Clean off thoroughly. Do not use thinner, benzine or alcohol as they may damage the surface of the unit.

SPECIFICATIONS

Track System: 4-Track 2-Channel Stereo
Heads: 3; PLAY I: Playback × 1
REC/PLAY II: Erase × 1,
Record/Playback × 1
Type of Tape:
Cassette tape C-60 and
C-90 (Philips type)
Tape Speed:
4.76cm/s (1-7/8 ips)
9.5cm/s (3-3/4 ips; in HI SPEED DUB)
Motors: PLAY I: 1 DC Servo Motor
REC/PLAY II: 1 DC Servo Motor
Wow and Flutter: 0.09 %
Frequency Response (Overall, –20dB):
30-16,000Hz, Metal Tape
30-15,000Hz, CrO_2 Tape
30-14,000Hz, Normal Tape
Signal-to-Noise Ratio (Overall):
55 dB (NR off, 3% THD Level, Weighted)
65 dB (Dolby B NR on, at 5 kHz)
70 dB (Dolby C NR on, at 1 kHz,
W-420C only)
Fast Winding Time:
Approximately 120 seconds for C-60
Inputs: Line; 98mV, 50k ohms
Outputs:
Line; 0.58V for load impedance of 50k ohms or more
Power Requirements:
120/230V AC, 50/60Hz (General Export Models)
120V AC, 60Hz (U.S.A./Canada)
230V AC, 50Hz (Europe)
240V AC, 50Hz (U.K./Australia)
Power Consumption: 11 W
Dimensions (W x H x D):
435 × 130 × 215 mm
(17-1/8" × 5-1/8" × 8-7/16")
Weight: 3.3 kg (7-1/4 lbs) net
Standard Accessories:
Input-Output connection cords

- Specifications were determined using metal tape except as noted.
- Improvements may result in specification or feature changes without notice.
- Photos and illustrations may slightly differ from production models.